

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Steven A. Bogen, Herbert H. Loeffler and John A. Purbrick

Application No.: 90/007,351 Group: 3991

Filed: December 21, 2004 Examiner: Douglas McGinty

Confirmation No.: 1121

For: RANDOM ACCESS SLIDE STAINER WITH INDEPENDENT SLIDE
HEATING REGULATION

CERTIFICATE OF MAILING OR TRANSMISSION	
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RESPONSE AND STATEMENT OF SUBSTANCE OF INTERVIEW

Attn: Mail Stop EX PARTE REEXAM
Central Reexamination Unit
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Response is being filed in response to the Office Action mailed from the U.S. Patent and Trademark Office on December 23, 2005 in the above-identified application.

Reconsideration and further examination are requested.

STATEMENT OF SUBSTANCE OF INTERVIEW

Applicant thanks examiners Douglas McGinty, Deborah Jones and Bennett Celsa for a helpful interview with Dr. Bogen and the undersigned on February 16, 2006.

At the interview, Dr. Bogen explained the evolution of the slide heating technologies leading to the claimed invention: the cited Bogen patents introduced conductive heating of slides on a platform that indexed past a dispenser; a first embodiment presented but not claimed in the subject patent 6,183,693 introduced the capability of heating slides on the moving platform to different temperatures using a controller mounted in a stationary position on the assembly base (Fig. 7); and the claimed embodiment of the '693 patent has a temperature controller on the moving platform that communicates with a user interface of the moving platform (e.g., Fig. 17).

Dr. Bogen described the cited Muller system as relating to an In Situ Hybridization (ISH) stainer. The Muller system has no moving platform, and the complicated fluidic system of Fig. 21 would teach away from a moving platform system. For reasons presented below, one would not combine Muller with the Bogen references. Even if an attempt were made to combine selected aspects of Muller with Bogen, one would reach no more than the first, unclaimed embodiment of the '693 patent. There is no suggestion in any of the references of placing temperature controllers on the moving platform. In fact, as discussed below, there would be sound reasons to position the controller off of the moving platform as presented in the first unclaimed embodiment of the 6,183,693 patent.

A more detailed discussion of the above points presented in the interview as well as additional points in response to the Office Action follows.

REJECTIONS BASED ON BOGEN (US 6,180,061) OR BOGEN (US 5,645,114) IN VIEW OF MULLER

Claims 1-3 and 5-13 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 8-15 of Bogen (US 6,180,061) in view of Muller (US 5,273,905). Claim 4 was rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 8-15 of Bogen (US

6,180,061) in view of Muller (US 5,273,905), and in further view of Kagayama (US 5,178,834) and Nelson (US 4,670,219).

Claims 1-3 and 5-13 were rejected under 35 U.S.C. §103(a) as being unpatentable over Bogen (US 5,645,114) in view of Muller (US 5,273,905). Claim 4 was rejected under 35 U.S.C. §103(a) as being unpatentable over Bogen (US 5,645,114) in view of Muller (US 5,273,905) and in further view of Kagayama (US 5,178,834) and Nelson (US 4,670,219).

The rejections under the judicially created doctrine of obviousness-type double patenting and under 35 U.S.C. §103(a) are respectfully traversed and reconsideration is requested.

Neither the claims of Bogen (US 6,180,061) nor the specification of Bogen (US 5,645,114), singly or in combination with Muller, teach, disclose, or suggest heating slides on a moving platform to different temperatures. Additionally, neither the claims of Bogen (US 6,180,061) nor the specification of Bogen (US 5,645,114), singly or in combination with Muller, teach a temperature controller, on a moving platform, that regulates power to heating elements on the platform and that communicates with a user interface, off of the platform, through which slide temperatures are set. For these reasons, the rejections are respectfully traversed and reconsideration is requested.

As was emphasized in the Examiner's Reasons for Allowance of the patent under reexamination, the combination of Bogen (US 5,645,114) and Muller was distinguished:

The prior art fails to teach the presently recited combination of a platform supported temperature controller with a user interface mounted off of the platform, for independently regulating the temperature of each of a plurality of microscope slides also mounted on the platform.

THE PRIOR ART DOES NOT TEACH HEATING ELEMENTS CAPABLE OF HEATING SLIDES TO DIFFERENT TEMPERATURES ON A MOVING PLATFORM

Neither Bogen reference teaches a temperature controller with the appropriate controls to accomplish heating each slide to a different temperature

The examiner has referenced claims 8 and 9 of Bogen patent 6,180,061, which recite first and second heating elements and temperature sensors. With respect to the Bogen patent 5,645,114, the Examiner states that “[t]he presence of heating elements under each slide would provide the capability of heating each slide to different temperatures.” However, contrary to this assertion, neither Bogen reference was capable of heating each heating element set to a different temperature because neither reference claims or teaches a temperature controller with the appropriate controls to provide the appropriate signals to the heating elements. As noted in the Notice of Allowance for U.S. patent 6,541,261, a daughter patent of the patent under reexamination, the Examiner found that “one of ordinary skill in the art viewing the apparatus of the ’114 patent, would not have recognized any necessity nor desirability, absent applicant’s disclosure, of providing the capability of heating simultaneously to different temperatures.”

The separate heating units in the cited Bogen patents can be seen as the result of having plural, removable slide supports, each of which carries at least one microscope slide, rather than for the purpose of enabling heating of each slide to a different temperature. Those slide supports were separately removable to facilitate loading of slides onto the apparatus. In at least one embodiment, the slide frame housing 12 was bolted onto the slide frame base 8 by two Allen bolts 16 to provide an individual sealed cavity over each tissue sample slide at each of the slide positions 7a - 7e. If the slide supports were not separately removable, each with its own heating element, loading of the slides onto the apparatus would have been awkward. Because carousel systems at the time generally used convective heating to a common temperature, one skilled in the art at the time of filing of this application would not have seen the need or advantage of control of those separate units to different temperatures and would thus not have added the necessary additional control circuitry and its attendant complexity and cost on a moving carousel.

The ability to heat the heaters to different temperatures is a distinction of the pending claims that would not have been appreciated by one of ordinary skill in the art at the time of the invention.

Heating slides to different temperatures on a moving platform yielded unexpected results

The claimed slide stainer that enables heating of slides on a moving platform to different temperatures leads to unexpected results not previously thought possible: automatic processing of special stains.

A class of biological analysis which has been successfully implemented using carousel type slide carriers is that of immunohistochemistry (IHC). Carousel systems provide particular advantage when used with IHC techniques because they permit slides to be indexed to dispensing stations where small volumes of reagent may be dispensed onto the slides.

Ventana Medical Systems Inc. has been a principal provider of such carousel systems. A Ventana patent to Richards (US 6,296,809), though not prior art to the present application, provides an extensive discussion in its background, including a discussion of IHC techniques. As noted in Richards, such prior systems typically allowed for heating of all slides to 37 degrees C, matching body temperature (see column 1, lines 64 and 65 and column 2, lines 22-28). Hot air blower and heat lamp heating of the samples used in prior Ventana systems is noted at column 2, lines 22-23, and the resistive heating elements of Bogen (US 5,645,114) are discussed at lines 50-59.

The present invention was developed to address the needs of another class of biological analysis, generally referred to as special stain techniques, for which carousel systems had not previously been used. Prior to automation, special stain techniques often required judgments on the part of the technician, such as color analysis. Namely, the technician dipped the slide in a chemical or dye until the tissue elements acquired a certain specified color, as determined visually. Because such techniques rely highly on the skills of the technician, and are considered

an art, they had not been considered appropriate for automatic processing using a carousel type system.

Applicants recognized that even special stain processes could be performed in an automated system by strictly controlling variables such as reagent concentration (requiring use of reagent only once), temperature and incubation time. Contrary to beliefs of those skilled in the art, precise control could take the place of the art required prior to the present invention.

Proper automation of special stains required not only the ability to obviate the need for human visual interpretation, but also the ability for a single instrument to heat different slides to different temperatures for varying periods of time. Thus, to provide an automated system for special stain processing, applicants additionally provided independent electronic control of heating elements in order to heat slides to different temperatures. That feature had not previously been included in systems that enabled controlled dispensing of minute volumes of reagent on slides by indexing the slides relative to reagent dispensers.

Heating of slides on a moving platform to different temperatures enabled the unexpected automatic processing of special staining, a result not suggested by any of the cited references alone or in combination.

Contemporary developments indicate the nonobviousness of heating to different temperatures

There is also objective evidence that one of ordinary skill would not have thought of independent heating control if he/she examined the 6,180,061 or 5,645,114 patent. As noted above, the Richards patent (US 6,296,809) was filed by Ventana Medical Systems, Inc., the leader in the field. That patent claims priority to a provisional patent application Ser. No. 60/076,198, filed February 27, 1998, the same date as the priority date of this application. The Ventana provisional application disclosed conductive heating with separate heating units for individual slides similar to the cited patents. However, the Ventana inventors did not disclose independent control of the heaters. It was only later, with the February 26, 1999 filing, that the

Ventana inventors disclosed independent control. This is an example of a group of individuals, of even greater than ordinary skill in the art, who did not initially disclose independent slide heating control.

In fact, two years after the priority date of the present application, Ventana Medical Systems published the attached article, Exhibit A, (Grogan, Thomas, et al. "An Update on 'Special Stain' Histochemistry with Emphasis on Automation," *Advances in Anatomic Pathology*, Vol. 7, No. 2, pp. 110-122), which discusses the "art" of special stain techniques (page 120) as well as the difficulties of automating special stain processing (pages 117-118). The Ventana proposal was to adapt all special stains to a single processing temperature (page 117). They relied on a dry forced air heater capable of heating all samples to 60°C (pages 118-119).

All of the pending claims recite heaters "having the capability of heating to different temperatures." None of the prior art, alone or in combination, teaches such a capability.

THE PRIOR ART DOES NOT TEACH A TEMPERATURE CONTROLLER ON A MOVING PLATFORM COMMUNICATING WITH A USER INTERFACE OFF OF THE MOVING PLATFORM

Neither Bogen (US 6,180,061) nor Bogen (US 5,645,114) claims or teaches a temperature controller on a moving platform and Muller does not even disclose a moving platform. As stated in the original prosecution in an Amendment filed July 5, 2000:

Although the ability to heat the heaters to different temperatures is a distinction of the pending claims, the device claims under consideration are directed to a specific implementation of such independent control of heating elements on a moving platform which the Examiner has not even addressed, and the claimed implementation is not suggested by any of the references. In particular, in the actual implementation of the system disclosed in Bogen et al., the sets of heating elements were individually controlled, but control was directly from the stationary user interface computer. Accordingly, in one implementation discussed at page ten of the present application, an implementation with ten slide frames on the moving platform required a service loop containing a minimum of 30 wires

between the stationary computer and the moving heating elements.

Not only has the Bogen et al. reference failed to recite that each of the heating element sets has the capability of heating to different temperatures, as acknowledged by the Examiner, Bogen et al. has failed to suggest temperature control circuitry mounted on the moving platform in order to enable a reduced number of connections between the controlling computer and the moving platform.

The *in situ* hybridization system of Muller would not have been combined with Bogen

As noted in the original prosecution, Muller relates to a system in which the samples are stationary. As such, it does not address the problem of controlling heating elements on a moving platform.

The Examiner states that "Muller (US 5,273,905) teaches the use of temperature controllers which are close to the slide holders, temperature sensors, and heating elements for convenience and cost savings. Those advantages would applied (sic) to both moving and stationary platforms, and thus one would still have been motivated to utilize the temperature controllers of Muller (US 5,273,905) in the apparatus taught by Bogen (US 5,645,114)." The Examiner relied on substantially the same argument for the obviousness rejection over Bogen (US 5,645,114). Reconsideration of that position is requested.

MPEP §2141 states that "references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination" when considering an obviousness rejection under 35 U.S.C. 103. The Court of Customs and Patent Appeals summarized this requirement as follows:

The ever present question in cases within the ambit of 35 USC 103 is whether the subject matter as a whole would have been obvious to one of ordinary skill in the art following the teachings of the prior art at the time the invention was made. It is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position, to the

exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art.

In re Herman Wesslau, 353 F.2d 238, 241 (CCPA 1965). The Muller reference, taken as whole, singly or in combination with either Bogen reference, does not render the claimed reference obvious.

First, there is no motivation to combine the apparatus claimed in Bogen (US 6,180,061) or disclosed in Bogen (US 5,645,114) with the apparatus disclosed in Muller. In fact, when taken as a whole, the two devices are inherently incompatible. Muller is an *in situ* hybridization (ISH) stainer that must conserve small amounts of expensive reagents. As such, it teaches the use of a sealed incubation chamber (claim 3) so that the reagent does not evaporate during high temperature incubations (column 15, line 28- column 16, line 25). Reagent is introduced into the sealed chamber through fluid inlet and outlet channels 47 and 48 or with a hypodermic syringe. The inlet and outlet channels 47 and 48 are described in column 16, lines 26-36. The syringe is shown in phantom in Figure 2 and described in column 19, lines 21-39. The Bogen patents, on the other hand, describe a dispensing assembly wherein reagents are dropped onto slides from above. Since the slides in Muller would be inaccessible to the dispensing assembly taught by Bogen (US 6,180,061 and US 5,645,114), one of ordinary skill would not have any motivation to combine them. The two are mechanically incompatible.

Further, the heating system of Muller, when considered in its totality, is incompatible with the moving slide carousel described by Bogen (US 6,180,061 and US 5,645,114). The motivation for implementing a heating system in Muller included the need for active cooling. (Column 30, lines 19-39) To accomplish this, Muller describes an elaborate system of plumbing and valves to provide coolant liquid to each station. (Column 36, line 63 – column 37, line 8 and Figure 21) The coolant lines are permanently plumbed into each subassembly module 141.

Further, various reservoirs R1-R11 of Figure 21 must also be coupled through valves and tubing to each station. These reservoirs R1-R11 supply reagents and buffers that are important to performing ISH stains.

As discussed above, a prior art reference must be considered as a whole. If one of ordinary skill in the art wanted to gain the full automation advantages of the Bogen references, but to process ISH stains as described by Muller, then one would have to modify the primary references (Bogen) to accommodate those full functional needs of ISH stains, that is, the cooling, reagent and buffer systems described above. One of ordinary skill, however, considering that the substantial plumbing of Fig. 21 is required, would be strongly disinclined to combine the slide heating art taught by Muller with a moving slide platform, as described by Bogen. Unlike electrical wires, it would be difficult to supply a flexible coolant line and flexible supply line from the reservoirs between the stationary base and moving platform (e.g., rotary carousel) of sufficient diameter so as to supply different liquids to many different slides without twisting or kinking the tubing. What was accomplished with a flexible ribbon electrical cable would be more difficult with flexible plumbing. The plumbing would have to account for fluid flowing both on and off the rotary carousel, so at least two lines would be required. Moreover, the plumbing would have to be sufficiently thin so as to avoid causing a frictional drag on the free rotation of the rotary carousel, but wide enough to supply an adequate amount of liquid. One of ordinary skill, looking to the Muller device, would try to avoid a plumbing interface between a stationary and moving platform, as described by Bogen (US 6,180,061 and US 5,645,114). When the Muller disclosure is considered as a whole, it teaches away from any combination with the Bogen references.

The heating of slides to different temperatures in Muller resulted from the particular requirements of ISH staining. Because of the need for sealed chambers to allow for use of very small amounts of reagent, carousel systems with overhead dispensers such as in the Bogen references are not suited to ISH staining. The Bogen, *et al.* patents, on the other hand, do not relate to ISH staining but would have been seen by one skilled in the art as being particularly suited to immunohistochemical (IHC) staining. IHC staining requires no more than heating to a common low temperature such as body temperature or no heat at all. Accordingly, one of ordinary skill in 1998 would not have modified the stainer of the Bogen references to incorporate independent temperature control.

If one were to attempt to modify the Bogen stainer to make it useful for ISH staining as described by Muller, then one of ordinary skill in the art would also have to import the sealed chamber and the extensive plumbing discussed above, without which the functional needs of ISH staining as taught by Muller could not be met. On the other hand, if one were to only selectively import the separate heating of Muller, one would not have the other requirements for ISH staining and would thus be unable to meet the function for which Muller had the separate heating. As we have already described, these features of Muller are incompatible with the instrument architecture in the Bogen automated design. Accordingly, one would not import any of the separate heating, the sealed chamber and the extensive plumbing of Muller into Bogen.

The Examiner's reasons for placing temperature controllers on a moving platform result from impermissible hindsight

In rejecting the current claims under 35 U.S.C. 103, the Examiner stated:

Claim 9 in Bogen (US 6,180,061) recites the electronic control of heating elements in general and Muller (US 5,273,905) teaches a convenient form of electronic control through the close placement of slide holding modules, heating elements, temperature sensors, and temperature control means. To be close together in the apparatus claimed by Bogen (US 6,180,061), those components would have to be mounted together on the moving platform since the slides are also carried on that platform. In order to reduce the amount of wiring and other circuitry which has to go between the moving platform and (sic) rest of the apparatus, moreover, it would have been obvious as well to mount the temperature control means on the platform.

The Examiner's reason for combining the references relies on impermissible hindsight. The undersigned has found no suggestion in Muller of a close arrangement of the electronics with heating elements. In fact, it would be expected that the electronics would be mounted to the rear of the housing 248 away from the modules 113. In the design of systems having both mechanical and electronic components, it is typical to isolate the electronics somewhat from the vibrations and heat of the mechanical components through electrical conductors. Also, because

the space around the mechanical components is limited, it is typical to place the electronics in an empty volume out of the way of the mechanical components. This assumption is supported by the position of the computer access ports 247 in the lower rear portion of the housing in Fig. 1. Using the same reasoning, looking at the system of Fig. 1 of the subject patent, for example, one would be expected to include any electronics in the assembly base 2.

Additionally, the Examiner's suggestion that one of ordinary skill would place the temperature controllers close to the slides in order to reduce the amount of wiring is not accurate when considering the particulars of the claimed invention. Although it may be a good practice to arrange electrical components so as to shorten the wire lengths, the claimed invention presents an exception to this practice. The moving platform is closely associated with the device's fluidics. Reagents and buffers are dispensed onto slides, which are on the moving platform. If there were to be a leak, then any circuitry located nearby could be irrevocably damaged. Water and electricity also create a potential safety hazard. One of ordinary skill would seek ways to segregate important electrical components from areas of possible liquid spills. Lengthening the wires and thereby segregating the electrical circuitry from areas of possible leaks would be a more important consideration to one of ordinary skill than economy of wire.

As noted, the Examiner's rationale for constructing the claimed invention from Bogen and Muller is impermissible hindsight reconstruction. There was no need, either from Muller or in a general design approach, to have the temperature controllers so close to the heaters as to be required to be on the platform. In fact, the early Bogen system, presented in a first, unclaimed embodiment of the patent under reexamination and discussed below, presented no concerns in that regard. Additionally, the Examiner's conclusion that a controller would be mounted on the platform "to reduce the amount of wiring" is not suggested by any of the references. Further, the Examiner's statement does not take into consideration the technological challenge of placing electronics on a platform that has heaters and open liquids and that stops and starts, creating a less friendly environment than a base housing, for example.

Concerns for closeness of electronics and number of wires would not, and did not, lead to the claimed invention. The claimed invention resulted from the need for minimizing drag between moving and stationary parts where many heaters on the moving part were controlled from stationary electronics. One would not look to a system such as Muller, having only twelve stationary modules and a complicated valve and heating control system, to deal with a problem in heating many more slide heating elements on a moving carousel. Even if one were to look to Muller, one would see electronics, presumably mounted in the lower rear of a housing behind the mechanical assembly, coupled only by wires. One would simply not see a solution, much less the claimed solution, to the problem.

Even if Muller were combined with Bogen, the claimed invention would not result because the temperature controllers would be mounted on the stationary base

Muller does not use a moving platform that supports microscope slides and thus teaches nothing toward a moving platform implementation; and even if one were to attempt to combine the references in a moving platform implementation, selectively looking to Muller for separate temperature control, one would at best obtain the first unclaimed approach of patent 6,183,693 relied upon by Dr. Bogen and his co-inventors prior to conception of the claimed invention. Muller has only twelve modules as compared to the ten slide frames provided in the original Bogen implementation. Just as Bogen was able to couple the heaters of those slide frames through thirty wires to a stationary electronic system, Muller could have and would likely have done the same had he considered a carousel implementation, which he did not.

The Examiner has noted that Muller includes a reduced number of wires from a host processor to temperature controllers and plural wires from each controller to each heating element, similar to Applicant's claimed embodiment. However, Applicant's unclaimed first embodiment has substantially the same configuration using a single controller. What Muller does not teach, and what was not obvious to Applicants in designing the first embodiment of patent 6,183,693, is the placement of the temperature controller on the moving platform such that

a reduced number of wires is required in the bridge from the stationary circuitry to the moving circuitry.

The Examiner argues that it would have been obvious to mount the temperature controller means described by Muller on the moving platform of Bogen (US 6,180,061 and US 5,645,114). Careful examination, however, will reveal that such an arrangement is not practical. The temperature controller means of Muller is described in column 60, lines 30-42. Muller describes using a "conventional temperature controller, such as a temperature controller of the types available commercially from the Omega company under the trade designation CN2012." (column 60, lines 32-35) However, conventional off-the-shelf temperature controllers such as the one cited by Muller can not be easily mounted on a moving platform.

The CN2012 controller is ideally adapted to the purpose for which Muller needs. It can receive set point information through a digital signal (page 44 of the Omega CN2012 manual, attached as Exhibit B). The digital signal is conveyed through a serial port (column 60, lines 47-51). Moreover, the CN2012 can control both heating and cooling (Omega manual, section 1.1, page 1), the latter being an important aspect of the temperature control system taught by Muller. Each CN2012 has up to two outputs (Figure 2-6, page 8 of the Omega CN2012 manual), presumably one for activating a heater and the other a cooling device. Both are associated with a single temperature set point at any one time.

The CN2012 temperature controller only controls one heater, and a temperature controller is provided for each processing station block 112 (Muller, Column 60, lines 30-35). Thus, many of these devices would be required for the many slides described by Bogen. Each temperature controller is nearly four inches wide and eight inches deep (Omega manual, page 5, Figure 2-1). There is simply nowhere on the moving platform to fit so many temperature controllers. By comparison, each slide occupies approximately one inch along the periphery.

Thus, contrary to the examiner's suggestions, the most logical place to position the temperature controllers of Muller, if applied to Bogen, would be in the stationary assembly space, far from a leak hazard and where adequate space existed.

In fact, another off-the-shelf temperature controller was used by Applicants in the first embodiment of patent 6,183,693 prior to the claimed invention. The controller was positioned on a stationary, non-moving surface and wires ran through a wire bundle to ten different heaters. In order to overcome the problem of a stiff wire bundle, each heating circuit activated five heaters wired together, thereby reducing the number of wires to a manageable number (US 6,183,693 patent, column 9, lines 63 – 66). If Applicants can be considered to be of ordinary skill, then Applicants demonstrated how one would use a conventional, off-the-shelf temperature controller, as described by Muller. One of ordinary skill would re-create the earlier technology, as described in the first embodiment of the patent under reexamination. One of ordinary skill would not arrive at the newer temperature control technology, as claimed in the patent under reexamination.

Neither of the Bogen references singly or in combination with Muller render obvious the innovation of mounting a temperature controller on a moving platform that supports microscope slides. Furthermore, none of the references cited by the Examiner disclose, teach, or suggest the number of conductors being less than the number of heater element sets as claimed in Claims 3 and 8. Thus, the rejections under the judicially created doctrine of obviousness-type double patenting and under 35 U.S.C. §103(a) are respectfully traversed and reconsideration is requested.

THE TERTIARY REFERENCES CITED BY THE EXAMINER DO NOT PROVIDE ANY FURTHER TEACHINGS THAT RENDER THE CLAIMED INVENTION OBVIOUS

Claims 1-3 and 5-13 were rejected under 35 U.S.C. §103(a) as being unpatentable over Bogen (US 5,645,114) in view of Muller (US 5,273,905), further in view of Copeland (US 5,595,707), Freeman (WO 96/30124), and Bogen (US 4,847,208). Claim 4 was rejected under

35 U.S.C. §103(a) as being unpatentable over the same references and still further in view of Kagayama (US 5,178,834) and Nelson (US 4,670,219). The tertiary references were cited for their showing of staining reagents. However, both of the Bogen references and Muller themselves disclose stainers.

As discussed above, Bogen in view of Muller fails to disclose, teach, or suggest heating elements on a moving platform having the capability to heat to different temperatures as claimed in the patent under reexamination. The references also fail to disclose, teach, or suggest a temperature controller mounted on a moving platform in communication with a user interface off of the moving platform. The tertiary references do not provide any further teachings that would render the above features obvious. For these reasons, the rejection under 35 U.S.C. §103(a) is respectfully traversed and reconsideration is requested.

Supplemental Information Disclosure Statement

A Supplemental Information Disclosure Statement (SIDS) is being filed concurrently herewith. The references have been cited in the pending continuation to this patent. Entry of the SIDS is respectfully requested.

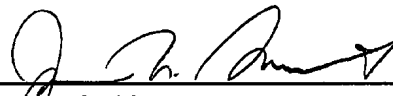
CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are patentable, and it is respectfully requested that a Notice of Intent to Issue *Ex Parte* Reexamination Certificate be issued. If the Examiner feels that a telephone conference would expedite prosecution of this case, he is invited to call the undersigned at (978) 341-0036.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

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Dated: 2/23/6

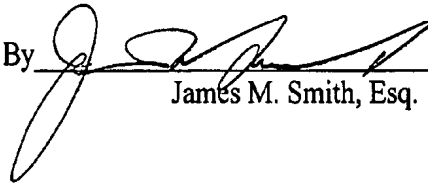
CERTIFICATE OF SERVICE

The undersigned certifies that a copy of the foregoing Response and Statement of Substance of Interview was served on counsel listed below by First Class Mail, postage prepaid, in an envelope addressed as follows:

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on this 23rd day of February 2006.

By

A handwritten signature in black ink, appearing to read 'James M. Smith', is written over a horizontal line.

James M. Smith, Esq.